

cism; it has relieved me of a foolish fear that, in spite of improbability, the British Museum might possess some positive evidence in natural association of parts that *Zygomaturus* is *Nototherium*. I am comforted to find that the hypothesis remains in its pristine purity, also to think that if no better attack upon my position can be made than that which I have met it is pretty secure. An utter failure to show that the right tooth is not the *pm.4* proper to the skull, together with the confession that it is not the premolar of *Nototherium*, might well have released me from any obligation to cut Mr. Lydekker's Gordian knot.

Queensland Museum,
April 15, 1889.

XXXI.—*Note on the Above.* By R. LYDEKKER.

BEING extremely unwilling to enter into any prolonged controversy on this or any other subject, my remarks on the foregoing communication will be of the briefest nature.

If the author be right in his contention that the first cheek-tooth on the right side of the cranium to which the name *Zygomaturus* was applied is homologous with and similar to the corresponding tooth on the left, then there may be evidence that this skull is specifically distinct from the form to which Sir R. Owen gave the name of *Nototherium inerme*. This, however, would be very far from proving that these two forms are widely different and have a totally distinct type of appendicular skeleton. Moreover, if it be assumed that the so-called *Zygomaturus* is widely different from that type of cranium to which the author would restrict the term *Nototherium*, we are confronted with the difficulty that while, with one exception, all the complete maxillæ in the British Museum appear referable to *Nototherium*, all the mandibles seem to be of the type of *Zygomaturus*.

In conclusion, I cannot pass over the author's extraordinary statement that the milk-teeth of Marsupials are always similar in structure to their successors, when, as is well known, precisely the reverse is the case. Thus we have only to cite the case of many of the Kangaroos, where a molariform *mm.4* is succeeded by a secant *pm.4*. This ignorance of such a well-known feature among existing forms is not calculated to raise one's estimation of the author's acumen when he has to face the more difficult question of the structure and affinities of extinct types.